Teaching Board

1st level Master
Molecular Genetics and
Diseases
A.Y. 2018-2019
8th edition

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for the application:
www.unisi.it/didattica/master-universitari

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UNIVERSITÀ DI SIENA
1240
The main objective of the program is to train professionals in the field of molecular genetics, providing them with a deep knowledge in genome/transcriptome structure and related techniques of analysis. In particular, students will have the opportunity to be trained on the following topics: molecular mechanisms of the most common human genetic diseases; Key processes in carcinogenesis and tumor progression; Chromosome analysis (standard karyotype and array-CGH); mutation detection (Sanger sequencing and NGS); Transcriptome analysis (RNA-seq; Real Time qPCR); Bioinformatics tools for genome-wide data analysis; Genetic reprogramming (iPS) and neuronal differentiation; preimplantation genetic diagnosis.

The training program lasts 1 year. Formal lessons will be held in Siena and it engages the student for a total of 8 weeks scattered throughout the year. The internship lasts 550 hours. It is possible to carry out the internship also in more than one center prior approval of the Teaching Board.

At the end of the Master, the candidate must be able to work with high-level responsibilities in the field of molecular genetics, particularly in the development and application of diagnostic, prognostic and predictive procedures, based on the latest generation technologies.

This Master is accessible by graduate students with bachelor degree or master degree in Medical Biotechnologies, Biomedical Sciences, Biomedical Laboratory Techniques.

The Master is open to a maximum of 25 participants selected on the basis of their curriculum by the professors of the Teaching Board.

Some witnesses

Monica Vigna
This Master has increased my passion for medical genetics and this not only thanks to the interesting topics but also due to the clear and up-to-date lessons and a team of highly qualified teachers. Definitely a course I would recommend!

Gabriella Dodato
This Master is extremely interesting and exhaustive. I think it was crucial to complete my postgraduate training and it gave me the opportunity to improve my skills in the genetic field.